

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A signal processing device, comprising:

a general-purpose signal processor formed of ~~an assembly of plural~~ a plurality of component-processors, each of the component-processors is capable of operating under a plurality of operating environments associated with a plurality of software tasks, and operating independently from other component-processors; and

a management processor for selecting a number of component-processors to operate and for configuring the operating environments of each of the selected component-processors in response to a type of processing and an estimated load of the entire processing ~~that configures connections for each of the component-processors in accordance with a demand for signal processing, wherein the management processor estimates a type of processing and an entire load of processing, and determines, based on the estimation, a number of component-processors to operate, and wherein said management processor configures connections of each of the component-processors and loads application programs into the component-processors.~~

2. (Original) The signal processing device as claimed in claim 1, further comprising an input/output interface for receiving a signal to be processed inputted from an external device or one of the component-processors, and for outputting a processed signal to the external device or one of the component-processors, wherein the management processor controls the input/output interface so as to swap one of the component-processors which receives the signal to be

processed which is inputted through the input/output interface or outputs the processed signal in accordance with a demand for signal processing.

3. (Previously Presented) The signal processing device as claimed in claim 2, wherein the input/output interface includes a cross bus switch that can selectively connect, under the control of the management processor, the external device to one of the component-processors, or the component-processors to each other.

4. (Previously Presented) The signal processing device as claimed in claim 2, wherein the input/output interface includes a multiple bus that can selectively connect, under the control of the management processor, the external device to one of the component-processors, or the component-processors to each other.

5. (Original) The signal processing device as claimed in claim 2, wherein a local memory is disposed on each of the component-processors, said local memory stores a signal to be processed or a signal processed result by the component-processors until the signal to be processed or the signal processed result becomes available to be outputted to the input/output interface.

6. (Original) The signal processing device as claimed in claim 2, wherein the general-purpose signal processor, the management processor and the input/output interface are disposed in a single case, the case including a first connection interface being connectable to a device that provides a demand for signal processing to the management processor, and a second connection

interface being connectable to the external device that delivers a signal with respect to the input/output interface.

7. (Currently Amended) An entertainment device, comprising:

a signal processing device including a general-purpose signal processor, a management processor, and an input/output interface; and

a main processor that provides a demand for signal processing to the signal processing device, wherein

~~said the~~ the general-purpose signal processor is formed of ~~an assembly of plural~~ a plurality of component-processors,

~~wherein~~ each of the component-processors ~~operate~~ operates in parallel ~~independent of~~ under a plurality of operating environments associated with software tasks and independently from other component-processors;

~~wherein~~ the input/output interface inputs a signal to be processed from an external device or one of the component-processors, and outputs a processed signal to the external device or one of the component-processors,

~~wherein~~ the management processor ~~sets~~ selects a number of component-processors to operate and configures the operating environments for each of the selected component-processors in ~~accordance with~~ response to a demand for signal processing ~~which is~~ provided from the main processor,

the demand for signal processing is estimated based on a type of processing and an estimated load of the entire processing, and

controls the input/output interface so as to swap one of the component-processors which receives the signal to be processed which is inputted through the input/output interface or outputs the processed signal in accordance with the demand for signal processing, and

~~wherein the management processor estimates a type of processing and an entire load of processing, and determines based on the estimation a number of component processors to operate, and changes the operating environment of each of the component processors.~~

8. (Original) The entertainment device as claimed in claim 7, further comprising a network interface that enables a connection with a computer network, and a storage means that stores digital information readable by a computer, wherein the main processor controls the network interface to acquire the digital information from an external device, stores the acquired digital information in the storage means, and provides the stored digital information and a demand for signal processing based on the digital information to the management processor of the signal processing device to constitute operating environments for entertainment processing the contents of which are determined in accordance with the digital information.

9. (Original) The entertainment device as claimed in claim 8, wherein the main processor constructs the operating environments for entertainment processing on one or more of the component-processors through the management processor, and, after constructing the operating environments, said main processor reconstructs said operating environments to new operating environments upon receipt of another digital information which differs from said digital information.

10. (Currently Amended) The entertainment device as claimed in claim 8, wherein the digital information comprises plural kinds of application programs that can execute required functions, respectively, and wherein the management processor assigns any of the functions to the corresponding component-processors, and reads ~~[[the]]~~ a corresponding application program for executing the assigned function from the storage means, and executes the application program.

11. (Original) The entertainment device as claimed in claim 10, wherein each of the component-processors operates only for executing the application program for executing the function assigned to the component-processor until the management processor provides another demand to the component-processor.